

**REMARKS**

Claims 2-4, 6, 17-19, 21 and 22 are pending herein.

By this Amendment, claims 1, 5, 7-16 and 20 are canceled, and claims 21 and 22 are added. Claims 2-4, 6 and 17-19 are amended to depend from, either directly or indirectly, new independent claim 21, and are further amended to better correspond to claim 21.

No new matter is added by this Amendment. Support for the amendments to the claims as well as new claims 21 and 22 is found in the original specification, claims and figures. In particular, support for new claim 21 is found at, for example, Fig. 3. Support for new claim 22 is found in original claim 1.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration since the amendments to the claims include features that further clarify the claims as previously suggested by the Examiner and, for example, replace the terms "input, output and common" with "first, second and third," respectively; (c) satisfy a requirement of form asserted in the previous Office Action; (d) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

**I. Claim Objections**

Claims 1-6, 12-14 and 17-19 were objected to because in claim 1 the term "to the other two layers" should allegedly read as "to the other of the two layers;" and in claims 6 and 17-19, the term "thereto" should allegedly read as "to the input and output electrodes."

Claim 1 is herein canceled. Claims 6 and 17-19 are herein amended to correspond to the amendments suggested by the Examiner. Thus, Applicant submits the requirements of the Patent Office have been met.

Reconsideration and withdrawal of the objections are thus respectfully requested.

## **II. Rejection Under 35 U.S.C. §102(b)**

Claims 1-6, 12-14 and 17-20 were rejected under 35 U.S.C. §102(b) over JP4-38866 (Adachi). This rejection is respectfully traversed.

Claims 1, 5, 12-14 and 20 are herein canceled. Claims 2-4 and 17-19 are herein amended to depend from new claim 21. Thus, the rejection of claims 1-6, 12-14 and 17-20 over Adachi is now moot.

However, with respect to new claim 21, as well as the claims dependent therefrom, these claims are believed to be allowable. In particular, the relationship between the comparator inputs and the first, second and third electrodes, as recited in claim 21, are not taught or suggested by Adachi. Instead, Fig. 5 of Adachi shows an array of intersections between orthogonal electrodes. However, nowhere does Adachi teach or suggest a comparator comparing outputs from two electrodes between which a ferroelectric and a piezoelectric layer are sandwiched. Instead, Adachi references its Fig. 5 and states that Fig. 5 shows a memory cell and a piezoelectric cell constituted by circuits shown in Figs. 3 and 4. Adachi then references Japanese Application No. S63-32163 as teaching a driving method for each of the cells. However, Japanese Application No. S63-32163 nowhere discloses such a driving method. Thus, Adachi fails to teach or suggest the features of claim 21. That is, nowhere does Adachi teach or suggest a comparator between a ferroelectric and a piezoelectric layer, as recited in claim 21.

For the foregoing reasons, Applicant submits that claim 21, as well as claims dependent therefrom, are not anticipated nor rendered obvious by Adachi.

**III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 2-4, 6, 17-19, 21 and 22 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Linda M. Saltiel  
Registration No. 51,122

JAO:LMS/tje

Date: February 15, 2005

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--